

REMARKS

The Office Action objected to Applicant's use in the specification of "PEEK" – an acronym commonly used in the industry for polyetherketone. Paragraph 00014 has been amended to include the chemical name, support for which may be found on the website of Welch Fluorocarbon, Inc. at www.welchfluorocarbon.com/techdata.htm#PEEKpolyetherketone

The Office Action rejected claims 1-3, 5 and 12-17 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,900,071 (Smith071).

Claims 1-6 require "a floating seal ... movable radially within the receiving chamber..."

The Office Action contends that Smith071 discloses "a floating seal (50) inserted into a receiving chamber of the female coupling member (60), the floating seal having a smaller outer diameter than the receiving chamber and being movable radially within the receiving chamber...." However, element 50 in Smith071 is not a seal but rather a retainer sleeve member. [col. 4; line 13] The seal in the undersea hydraulic coupling disclosed in Smith071 is element 40 which is "restrained from radial movement by a dovetail interfit with a mating shoulder on at least one of the retainer sleeve and the retainer-locking members." [abstract]

While claims 1-6 and 12-17 specifically require a seal movable radially within the receiving chamber, Smith071 specifically teaches that its seal be restrained from radial movement:

As shown in FIG. 3, the dovetail seal 40 is positioned between the retainer sleeve member and the threaded retainer-locking member. The dovetail seal is wedge-shaped in cross-section, having an outer cylindrical surface with greater axial thickness than its inner cylindrical surface. The first end 43 and second end 44 of the dovetail seal member are restrained from

radial movement by the frustoconical surface 35 of the threaded retainer-locking member, and the reverse inclined shoulder 52 of the retainer sleeve member. Thus, the dovetail seal forms the male portion of a dovetail interfit while the retainer sleeve member and threaded retainer-locking member together form the female portion of the dovetail interfit. The dovetail interfit restrains the annular seal from radial movement into the retainer bore when the male member or probe 10 is removed from the female member 60. [col. 4; line 59 to col. 5; line 7]

Thus, claims 1-3, 5 and 12-17 are not anticipated by Smith071.

The Office Action rejected claims 7-11 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,179,002 (Smith002).

The Office Action contends that Smith002 discloses "a floating seal for an undersea hydraulic coupling member comprising an elastomeric body (50) having a first smaller outer diameter and a second larger outer diameter, an inner diameter having at least one sealing surface projecting inwardly therefrom, a first O-ring (59) positioned in a groove adjacent a first end of the floating seal, and a second O-ring (58) positioned in a groove adjacent a second end of the floating seal."

However, O-rings 58 and 59 disclosed in Smith002 are radial seals on the outer circumference of elastomeric seal 50. "Optionally, the outer circumference of the dovetail seal 50 also includes O-rings 58, 59 which seal with the female member bore." [col 3; lines 63-65] They are not "positioned in a groove adjacent a first [or second] end of the floating seal" as required in claims 7-11.

Claims 7-11 are to a floating seal and the claimed O-rings positioned in grooves adjacent the ends of the seal permit the seal to float in the coupling member while maintaining a seal. Those skilled in the art will recognize that O-rings 58 and 59

of Smith002 would not maintain a seal under radial movement of the dovetail seal 50. Such seals are required on the ends of the floating seal as required by claims 7-11. It is clear that the Office Action recognized correctly that the "ends" of seal 50 are where lip or leg sections 74, 75 are located inasmuch as it contends that "Smith '002 teaches a float seal (70) having axial ridges (74, 75) extending from the second end thereof..."

Since the hydraulic coupling of Smith002 has no O-rings positioned in grooves adjacent the ends of the seal, it does not anticipate claims 7-11.

The Office Action rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Smith071 in view of Smith002.

It is submitted that claim 4, a dependent claim, should be allowable as a further limitation on the female undersca hydraulic coupling member of its base claim, claim 1.

The Office Action rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Smith071 in view of U.S. Patent No. 4,884,584 (Smith584).

Claim 6 requires a floating seal movable radially within the receiving chamber. In contrast, Smith584 discloses a coupling having a metal-to-metal seal between a male member and female member wherein "the seal member is allowed to float, or slide, longitudinally within the bore of the female coupling member between a first, extended position and a second, compressed position." [abstract] Thus, the teachings of Smith584 would not lead one of ordinary skill in the art to the claimed coupling having a radially movable seal.

For the reasons stated above, it is submitted that all the claims should be allowed over the references cited in the Office Action. Reconsideration of the rejection is requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Christopher D. Keirs". The signature is fluid and cursive, with the first name being the most prominent.

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